

CHAPTER 1

PURPOSE AND NEED

1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION AND LOCATION

1.1.1 Description

Quantum Geophysical, Inc. (Quantum), a seismic acquisition company based in Houston, Texas has filed a Notice of Intent to conduct geophysical operations for the Adobe Town 2D seismic survey project located in southeastern Sweetwater County, Wyoming. This request is on behalf of the holder of certain federal oil and gas leases issued before enactment of the Federal Land Policy and Management Act of 1976 that are located in the Adobe Town Wilderness Study Area (WSA). These leases are recognized as valid, existing rights under the *Interim Management Policy and Guidelines for Lands Under Wilderness Review* (IMP, pg 13). The project area is generally located in Township 14 North, Range 98 West and Township 15 North, Ranges 97 and 98 West (Figure 1-1). A Notice of Intent has been submitted to the Rock Springs Field Office (RSFO) Bureau of Land Management (BLM).

The Adobe Town seismic project is to be a shothole, helicopter-assisted recording operation. Quantum has completed survey operations, paleontological review, and the Class III archeological inventory for the proposed seismic line. Seismic operations are proposed to commence following project approval.

The proposed Adobe Town 2D seismic project is one 6.82-mile long seismic line (Figure 1-1). The project is located on public lands (federal ownership) administered by the BLM, RSFO and a short segment of the line affects the surface estate owned by the State of Wyoming. The proposed line is located entirely within the Adobe Town WSA.

1.2 PURPOSE OF AND NEED FOR ACTION

The overall purpose and need for this project is to employ practical methodologies for detecting oil and gas in stratigraphic and structurally complex subsurface strata. The proposed project would provide critical detailed subsurface data that would be used to detect subsurface structures capable of bearing hydrocarbons.

Geophysical exploration utilizing 2D seismic techniques is an intensive data acquisition and computer processing technique used to analyze and two dimensionally (2D) depict subsurface geologic structures and stratigraphy. The technique is capable of locating and displaying unknown subsurface reservoir rock which potentially contains producible hydrocarbons. Data obtained through 2D seismic survey would enable wells to be drilled with a greater probability of locating producible hydrocarbons than is normally attainable by utilizing previous methods such as less precise exploratory drilling. This would result in fewer non-productive wells being drilled in an area, and therefore, overall less surface disturbance resulting from access road and drill site construction.

Figure 1-1. Area Map - Adobe Town 2D Seismic Project.

CHAPTER 1: PURPOSE AND NEED

1.3 PURPOSE OF THE ENVIRONMENTAL ANALYSIS PROCESS

The BLM, Rock Springs Field Office (RSFO), Rock Springs, Wyoming, is the lead agency responsible for preparation of this EA. The evaluation of this proposal and alternatives were developed through interdisciplinary review with representatives from Quantum, the lessee, and the BLM, RSFO. Also, for purposes of this EA, reference to Quantum, as the project proponent, includes all contractors, subcontractors or other parties that would be involved in the design, layout, and operation of the proposed Adobe Town 2D seismic program.

The BLM, as mandated by the Council for Environmental Quality (CEQ) and National Environmental Policy Act (NEPA) directives, analyzes actions involving federal lands to determine their impact on the human environment (40 CFR, Parts 1500-1508). Prior to issuing a decision on the Quantum proposal, the BLM must comply with the requirements of NEPA. NEPA requires Federal agencies to use a systematic, interdisciplinary approach to ensure the integrated use of natural and social sciences in planning and decision making. NEPA also directs that an environmental analysis of proposed Federal actions must be completed to determine the probable effects of the federal action on the environment. The analysis is to determine whether approval of the proposed action would cause significant impacts to the human environment. The evaluation of the proposed action and alternatives was conducted by an interdisciplinary team with representatives from the BLM and a third-party contractor approved by and working under the direction of the BLM.

Factors considered during the environmental analysis process regarding the Adobe Town 2D seismic project include the following:

- A determination of whether the proposal and alternatives are in conformance with BLM policies, regulations, and approved resource management plan direction.
- A determination of whether the proposal and alternatives are in conformance with policies and regulations of other agencies likely associated with the project.

This EA is not a decision document. It documents the process used to analyze the potential impacts of the proposed action and alternatives and discloses the effects of the proposed action and alternatives to that action. A Decision Record, signed by the responsible official (Field Manager, BLM, RSFO) will document the final decision regarding the selected alternative. The BLM will document whether or not significant impacts would occur with implementation of any of the alternatives. If the BLM determines that no significant impacts would occur, a Finding of No Significant Impact (FONSI) Decision Record would be issued. If significant impacts are identified, the BLM decision would issue a Notice of Intent to prepare an environmental impact statement, with subsequent public input and additional analysis of the alternatives. The BLM decision will relate to BLM administered lands.

BLM's authority for imposing mitigation measures, including terms and conditions for approval of the NOI, pertains only to the federal lands, except on issues relating to 1) sites listed, eligible, or potentially eligible for the National Register of Historic Places and 2) Threatened and Endangered Species.

CHAPTER 1: PURPOSE AND NEED

1.4 RELATIONSHIP TO POLICIES, PLANS, AND PROGRAMS

1.4.1 Conformance With Land Use Plan

The document which directs management of federal lands within the RSFO is the approved Green River Resource Management Plan (RMP -USDI-BLM 1997). The project area affects public lands in the Adobe Town WSA. Management objectives for the WSA are to retain the wilderness quality and manage the WSA in accordance with the IMP until Congress acts on designation. All non-exempt actions within the WSA must comply with the non-impairment standard provided in Chapters I and II of BLM Handbook H-8550-1, the *Interim Management Policy and Guidelines for Lands Under Wilderness Review* (1995).

The Handbook provides six different practical effects of provisions in Federal Land Policy and Management Act (FLPMA) with respect to “interim management” of lands under wilderness review (IMP, pg 3):

1. The general standard for interim management is that lands under wilderness review must be managed so as to not impair their suitability for preservation as wilderness (nonimpairment standard). This applies to all uses and activities except those specifically exempted from this standard by FLPMA (such as grandfathered uses).
2. Permitted activities in WSAs (except grandfathered and valid existing rights) are temporary uses that create no new surface disturbance, nor involve permanent placement of structures.
3. Those grazing, mining, and mineral leasing uses that existed on October 31, 1976 (the date FLPMA was approved) may continue in the same manner and degree as on that date, even if this would impair wilderness suitability.
4. Lands under wilderness review may not be closed to appropriation under the mining laws in order to preserve their wilderness character.
5. Valid existing rights must be recognized.
6. All lands must be managed to prevent unnecessary or undue degradation.

Management direction in the IMP provides that seismic and inventory information gathering by helicopter or other means not requiring road blading or improvement may be allowed if it satisfies the nonimpairment criteria described in Chapters I and II of the Handbook (IMP, pg 33).

The Handbook also provides that activities proposed under leases, permits, and mining claims will be subject to the nonimpairment criteria described in Chapters I and II of the Handbook, except to the extent a specific proposal is covered by the ‘grandfather’ or ‘validated existing rights (VERs)’ provisions. Leases associated with the proposed Adobe Town 2D seismic project were issued prior to October 31, 1976. Policy provides that all pre-FLPMA leases represent VERs, but the rights are dependent upon the specific terms and conditions of each lease, including any stipulations attached to the lease. Activities for the use and development of such leases must satisfy the nonimpairment criteria unless this would unreasonably interfere with rights of the lessee as set forth in the mineral lease. When it is determined that the rights conveyed can be exercised only through activities that will impair wilderness suitability, the activities will be regulated to prevent unnecessary or undue degradation. Nevertheless, even if such activities impair the area’s

CHAPTER 1: PURPOSE AND NEED

wilderness suitability, they will be allowed to proceed. A pre-FLPMA lease does not carry with it a VER to obtain access to the lease boundaries across Federal lands and, in the absence of “grandfathered” uses, access may not be granted if it would violate the nonimpairment standard (IMP, pg 32).

It must be recognized that Quantum is working on behalf of the oil and gas lessee who holds three pre-FLPMA leases. The three leases pre-date passage of NEPA and FLPMA (which required BLM to consider lands for wilderness designation).

Lease Number	Date Issued	Acres
WYW-017284	January 17, 1969	1,840.00
WYW-017282A	March 1, 1969	640.00
WYW-017296	January 17, 1969	2,547.72

The seismic line also affects public lands in an area known as Monument Valley Management Area (MVMA). The boundary of the MVMA extends into the Adobe Town WSA. Designation of the MVMA as an Area of Critical Environmental Concern (ACEC) was deferred in the Green River RMP until a determination is made whether specific resources meet the ACEC relevance and importance criteria. Until an evaluation is made, management objectives for the area provide protection of wildlife, geologic, cultural, watershed, and scientific values. The area is open for consideration for mineral leasing, exploration, and development provided mitigation can be applied to retain the resource values (Green River RMP, p 37). Management prescriptions identified for the MVMA (i.e., paleontological study) have been incorporated but because the management requirements are more restrictive under the IMP, the MVMA is not discussed as a separate section.

The proposed geophysical project is in conformance with management objectives and actions provided in the approved Green River RMP and the IMP. Conformance is subject to implementation of prescribed mitigation measures proposed by Quantum in Chapter 2 and the mitigation measures derived through analysis of impacts in Chapter 3, Affected Environment/Environmental Consequences of this document.

1.5 ISSUES AND CONCERNS

1.5.1 Public Notification

BLM Handbook H-8550-1 (IMP) requires BLM to notify interested parties of certain actions proposed in WSAs including proposals to conduct geophysical operations (IMP, pg 20). In compliance with the handbook, BLM issued a scoping document on December 6, 2001, informing the public of the Proposed Action to conduct geophysical operations in the Adobe Town WSA. Nine response letters were received during the scoping process. These response letters are summarized in Chapter 4, Consultation and Coordination, of this EA.

1.5.2 Issues and Concerns

Environmental and social issues of local importance associated with the seismic project identified during the scoping process are as follows:

- Potential impacts to the wilderness character of lands within the Adobe Town WSA.

CHAPTER 1: PURPOSE AND NEED

- Potential impacts to wildlife habitats within the project area and adjacent lands, including sage grouse, raptors, prairie dogs, and other sensitive plant and animal species.
- Potential impacts to paleontological values within the analysis area.
- Potential impacts to cultural and historical values within the project area.
- Reclamation of disturbed areas associated with shot-hole drilling.
- Potential impacts to special status species, threatened, endangered, candidate or proposed species.
- Potential impacts to big game and their habitat (including crucial winter range) and wild horse habitat.
- Potential impacts of shot hole seismic activity on the subsurface hydrology.
- Potential impacts to sensitive soils within the project area.
- Potential impacts to vegetation along the proposed seismic line.
- Potential impacts to socioeconomics.